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ABSTRACT

Linguistic and cognitive assessment of children whose home language is not English involves a number of complex issues: minority labeling, the relationship between cognition and bilingualism, "normal" data on bilingual development, and monolingual versus bilingual environment for children experiencing delay. This paper concentrates on reviewing what has been reported about the course and result of "normal" bilingual development of Spanish and English, mentioning briefly studies of monolingual Spanish learners that have been conducted in the United States, and it presents sketches of three children who might be called bilingual, but who show various developmental problems and a diverse set of abilities. These sketches illustrate graphically the heterogeneity of linguistic skills and different program requirements of bilingual developmentally disabled children. (HOD)

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Specifying the needs of a 'bilingual' developmentally disabled population: Issues and case studies

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Introduction to the Issues

Linguistic and cognitive assessment of children whose home language is not English involves a number of complex issues which have been highlighted by recent legislation and court decisions, e.g., Lau vs Nichols. The first, and of course, one of the most important is the fact that a disproportionate number of minority children have in the past been labeled as deficient in cognitive development of academic skills (Mercer 1973). De Avila and his colleagues have demonstrated, in several studies (De Avila and Havassy 1975, De Avila 1976, De Avila and Pulos in press) that Piagetian measures are more accurate evaluations for Mexican-American children than are standard IQ scores. Piagetian measures are also more useful for the purpose of developing individualized educational programs for minority students.

A second issue of concern is the relationship between bilingualism and cognitive development: Is child bilingualism to be considered a help or a hindrance in the learning process? Although older studies of bilingual children (e.g., Darcy 1946) tended to regard bilingualism as a hindrance, more recent studies have shown positive effects of bilingualism in a number of intellectual areas (Cummins 1977). Bilingual children are superior to their monolingual peers in (1) general cognitive development, (2) "divergent thinking", (3) "orientation to language", and (4) "sensitivity to (linguistic) feedback cues". However, these advantages may be mitigated by differences in socio-economic class. Relative prestige of the two languages, as well as the age of the learners and context of acquisition will all play a role in determining the ultimate effects of bilingualism.

De Avila and Duncan (1979) reviewed research on bilingualism and cognitive development, suggesting that through the control of more than one language the child develops not only a metalinguistic awareness, but a cognitive "metaset" which gives the bilingual child an advantage in learning over monolingual peers. These authors note that a very great variety of children have been called 'bilingual', including those who have little or no proficiency in the second language (see also MacNab 1979). Thus, the so-called 'bilingual' population in many studies may have included various levels of language skills. In their own research, De Avila and Duncan carefully controlled for the linguistic proficiency

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of bilingual children. When bilingualism was defined as linguistic skill "equal to the monolingual proficiency of two other groups", the group of bilingual children was superior in performance of "psychological differentiation". Bilingual children also performed as well or better than their monolingual peers on several conservation measures (p. 13-14).

These research results would certainly indicate that bilingual proficiency is a worthwhile goal of an educational program. However, the means by which this goal is to be obtained are not generally agreed upon (Gonzalez 1977, Trueba and Barnett-Mizrahi 1979). For children who come from Spanish-speaking homes, data on the course of language acquisition in either a monolingual or bilingual setting has only begun to emerge in the last ten years or so (Van Naerssen 1979, Redlinger 1979 provide reviews). In order to evaluate linguistic or cognitive development of children who are in the process of becoming bilingual speakers of Spanish and English, it is important to have linguistic milestones by which to gauge their progress, whether this occurs as a result of acquiring two languages simultaneously, or through acquisition of English as a second language in childhood.

A third issue thus concerns observational data on the usual course of acquisition for Spanish and English. We might ask if children generally tend to confuse the two languages at preschool age. Are there linguistic structures which tend to emerge earlier in one language or the other? This information is necessary in order to make recommendations about language programming. A ticklish problem is whether an instance or developmental delay or language disorder can be reliably differentiated from 'interference' of one language structure into a second language.

Finally, if it can be agreed that bilingual proficiency is, for children developing normally, an apparent cognitive advantage, should this be considered in designing programs for children who come from non-English speaking backgrounds and who are also experiencing developmental disability? A widespread belief in the field of language disorders appears to be that the additional load of having two languages may further delay the progress of a child who is experiencing a developmental disability, so that a monolingual environment may be encouraged, even at the expense of the child's home language.

This list of issues--minority labeling, the relationship between cognition and bilingualism, "normal" data on bilingual development, and monolingual versus bilingual environment for children experiencing delay--is obviously much too long to be resolved in this paper.

In the next section, I will concentrate on reviewing what has been reported

about the course and result of "normal" bilingual development of Spanish and English, mentioning briefly studies of monolingual Spanish learners which have been conducted in the United States.

In the final section, I will present sketches of three children who might be called 'bilingual', but who show various developmental problems and a diverse set of abilities. These sketches will illustrate graphically the heterogeneity of linguistic skills and different program requirements of 'bilingual' developmentally disabled children.

1. Normal bilingual development

Several studies of children acquiring Spanish have been carried out in the United States (Gonzalez 1970, Brisk 1972, Toronto 1976). Although most of these studies have mentioned English influence, their major concern has been to establish the order in which various grammatical features emerge, or to note structures still in the process of acquisition at a given age. As Van Naerssen (1979) observes, differences in methodology and varying criteria for counting structures as mastered make comparison between these studies difficult. Thus, although a rough order of emergence for syntactic structures can be established, information on many forms is not in perfect agreement.

Aside from study of early vocabulary (Cornejo 1973), there has been comparatively little study of semantics in the acquisition of Spanish. Based on cross-linguistic data cited by Brown (1973) and Slobin (1973) on semantic relations in stage I, meanings such as locative, possessive, or notice could also be expected to emerge early in acquisition of Spanish.

Information on acquisition of pragmatics in Spanish, such as conversational ellipsis or use of routines, is also lacking. In summary, although investigation of language form has been carried out with monolingual Spanish children, many aspects of language use remain to be explored.

A second set of studies which are very important for information about the course of language development in Chicano children was conducted by Padilla and his colleagues (Padilla and Liebman 1975, Padilla and Lindholm 1976, Padilla 1978, Lindholm and Padilla 1978). An early study of three children (Padilla and Liebman 1975) showed that the rate of structural development (as measured by increase in mean length of utterance) was not aversely affected by bilingualism. The three children, who were between 17 and 26 months, showed similar grammatical features (e.g., negative, reflexive) to those observed in monolingual Spanish and English learners.

Padilla and Lindholm (1976) investigated stages in the acquisiton of several

English and Spanish structures in a much larger population of children: 19, aged 2 years to 6;4. Features of interest were questions, negation, possessives, as well as adjectives and adverbs. Although there were a few discrepancies in the frequency pattern for WH-questions (WH words were at first more frequent in Spanish), adverbs and adjectives appeared to be acquired at about the same time in both languages. The bilingual children had a similar pattern in the semantic type of WH-question first acquired to children studied by Brown's Harvard group: What and where were mastered early, while "when and cuando were not acquired until much later, and appeared in the speech of only a few children." (p. 140)

In a follow-up study on 18 of the children, Padilla (1978) showed that the order in which these children acquired the 14 English grammatical morphemes was similar to acquisiton orders developed from studies of monolingual English speakers.

The structural parallels between bilingual children and monolingual English learners show considerably more similarity than might have been predicted on the basis of the two different learning contexts. Although many studies of bilingual children have hypothesized that the child starts out with a single linguistic system which is gradually differentiated (e.g., Leopold 1947, Vogel 1975, Volterra and Taeshner 1978), Padilla and Lindholm (1976:141) found very little evidence of interference. They concluded that "bilingual children learn each of their languages separately and do not transfer the structures of one language to the other."

The lack of interference was further demonstrated by a study of 'linguistic interaction' in the bilingual children (Lindholm and Padilla 1978). A very low percentage of the children's utterances contained language mixing (3% overall), which usually consisted of an English noun inserted in an otherwise Spanish utterance. However, the authors speculated that this low figure could be attributed in part to the methodology used in data collection, which employed two "monolingual" adults--one who conversed with the child in English, and one who conversed only in Spanish.

Studies of Chicano children acquiring English as a second language have often viewed language mixing as a communication strategy which indicates inadequate control of English structures (e.g., works reviewed by Ramirez 1974). Detailed investigations of code-switiching have pointed out, on the other hand, that language-switching in children's speech may serve subtle sociolinguistic functions (McClure 1977, Lance 1975). Padilla and Lindholm (1978) noted that children used code-switching as a means of teasing the "monolingual' experimenter. Children in McClure's investigation were able to use code-switching according to a change

in addressee, in order to clarify an utterance, or to effect a conversational repair, at a very early age.

In three to six-year-old children, Garcia, Maez, and Gonzalez (1979) reported a higher proportion of code-switching than had been found by Lindholm and Padilla. In their large-scale investigation, Garcia et al. found that younger children produced more code-switches than older ones, and that the amount of language mixing showed geographical variation in the U.S. Carrasco (1979) recorded linguistic interactions in bilingual classrooms, noting that children used English as a social status indicator, while Spanish served other discourse functions.

Thus, while not all investigators have confirmed the extremely low proportion of mixing that was shown by children in the Lindholm and Padilla study, code-switching is not considered as a sign of lack of linguistic knowledge on the part of the child. Rather, appropriate use of code-switching is regarded as evidence that the child is learning adult-like use of language prevalent in his community, in which code-switching conveys social meaning (Gumperz and Hernández-Chávez 1975).

Bilingual children's metalinguistic ability to comment on 'who speaks what to whom', or to translate from one language to another has been regarded as evidence for growing competence in language use, both in diary studies of children (Fantini 1974, Bergman 1976) and in cross-sectional study (Lindholm and Padilla 1978). Padilla (1977:117) concluded that "the notion that child bilingualism creates a situation where the child cannot speak either language adequately and, as a consequence, speaks a hybrid mixture of the two languages, must be rejected."

Research reviewed above does not support the notion of a linguistic delay due to child bilingualism. Children acquiring both Spanish and English have been found to acquire linguistic structures at a rate parallel to that of their monolingual peers. In addition to the structural independence which these children apparently maintain between their two languages, bilingual children seem to learn very early on to exploit the sociolinguistic and discourse functions of code-switching.

Nevertheless, the developing communicative competence of Spanish/English bilingual children has not been thoroughly investigated. Despite considerable research, the picture of normal bilingual development remains in outline form. For bilingual children, as well as for monolingual Spanish learners, semantics and pragmatics especially deserve investigation. Comparative research is also needed to determine the linguistic similarity which may exist between children who have acquired Spanish and English simultaneously and those who have acquired English through instruction at early school age.

2. Language disordered children from Hispanic backgrounds

Given that until recently there has been little data on "normal" bilingual Spanish/English development, it is hardly surprising that few data are available on what language behavior might be indicative of a language disorder in Chicano children. Langdon (1977) reviewed existing research on bilingualism and language disorders and conducted her own study of six to eight-eight-old Puerto Rican children in the Boston area. She observed that, "there is evidence that some children are capable of maintaining and progressing in both languages, while others are struggling in the second language, and often in the first language as well" (p. 55-6). This impression was confirmed in her study, in which language-disordered children made more errors in both Spanish and English than did their normal-speaking peers. In particular, the language-disordered children performed worse on tests of sentence repetition and comprehension, two tasks which are commonly found in clinical language assessment batteries (e.g., the Del Rio Language Screening Test, Toronto et al. 1975).

Langdon's results show that it is possible to identify bilingual children who may be experiencing developmental problems independent of linguistic context. In order to avoid interpreting 'interference' as a disorder, Langdon conducted parallel language assessment in each language. Assessment concentrated on the children's control of linguistic forms; there is little information on the degree to which parameters of language use, or sociolinguistic rules, might be controlled in the disordered group.

Case studies

In order to illustrate the range and diversity of children's abilities which may be covered by the term 'bilingual', and to show graphically some problems of assessment, given the present state of knowledge about Spanish language acquisition, case sketches of three children will be presented below. Each of the children was evaluated for developmental disability at a University psychiatric hospital. General procedures of the assessment were similar for all children: each was examined by several members of an interdisciplinary medical team. Psychological evaluation was carried out, using a non-verbal measure and/or a pluralistic psychological test battery, in an individual session with a Spanish-speaking examiner. Language evaluation was conducted through formal tests of language development, as well as through language samples collected in informal conversations with family members and the examiner, who spoke both Spanish and English.

Hector

Hector, the youngest child, is a second-generation Mexican-American. Features

of Hector's language are summarized in Table 1. At the time his language was evaluated, Hector was about four and a half years old.

According to his family, Hector's home language is Spanish. Although Hector might be called 'bilingual' by some very broad classification schemes, his proficiency in English is limited to single words embedded in Spanish, such as the phrases beginning with mira ("lookit") in Table 1.

Hector's expressive language in Spanish shows several formal features which would be symptomatic of developmental delay. Most of his utterances are only one or two words long, with an average utterance length of 1.78 morphemes. This MLU (mean length of utterance) is comparable to younger children studied by Padilla and Liebman, and is considerably shorter than MLU's reported by Linares-Orama and Sanders (1977) for three-year-olds learning Puerto Rican Spanish. For this dialect, the authors reported an MLU between 6.3 and 8.6 at age three. Although comparability of Hector's data to Linares-Orama and Sanders' is admittedly limited by method of data-collection and dialect differences, Hector's MLU nonetheless seems to reflect a delay.

Hector's speech could be termed telegraphic, since his utterances usually lack function words and inflections. Although Hector does not use the plural morpheme productively, zapatos 'shoes' usually occurred with the inflection ['patos]. Similarly, niño 'child' appeared with an article [nánino] (based on la niño); ven (cmne, 2nd imperative) also occurred with an incorporated reflexive pronoun, e.g., Mama, vente 'Mama, come'. Rarely occurring verbs were used without inflections, except for a seemingly stereotypic cayó 'It fell' [ajó] used when something was dropped or fell.

Although, as mentioned above, there is little data on early semantic relations in the acquisition of Spanish, meanings expressed by Hector are similar to those which have been found in Stage I speech in several languages (Brown, 1973). Two-term relations expressed by Hector included possessive: bebe eso (for) 'baby that', eso mine, as well as recurrence: oto eso 'nother that', oto candy 'nother candy'. Among early functions of utterances included in Hector's repertoire were both commands (Mamá vente) and notice or locative: aquí wau wau 'bow-wow here'.

Overextension of word-meanings (Clark, 1974), shown by Hector at age four-and-a-half, would also be indicative of an early stage in language development. For example, Hector used the word vaca 'cow' to talk not only about cows, but also dogs and horses.

Perhaps the most striking feature of Hector's language is the manner in which words are incorporated into communicative gestural sequences. For example, in

Table 1: Characteristics of Hector's Expressive Language, age four and a half

A. Linguistic form

Spanish predominant, English limited to single words

e.g. Mira, ese MINE 'Look, that mine.'
Mira, CHICKEN 'Look, chicken.'

MLU: 1.78

Grammatical morphemes not used productively

B. Semantic relations

Typical of Stage I speech: e.g., possessive, notice, agent-object

C. Use of language

Communication by gesture plus telegraphic utterance

order to get an adult to look at herself in a hand mirror, Hector said espejo, tu espejo 'Mirror, you mirror' and mimed the appropriate actions. Hector described a picture of a saw as Papá así mira 'Papa like this look' while making sawing motions. He also commented on a picture of a turtle by very accurately miming the plodding walk of a turtle with hand gestures. Hector's apt use of gestures and limited expressive language seem to indicate that he is attempting to communicate rather complex messages, but for unknown reasons, he has not yet learned the formal linguistic means to do so.

In order to corroborate the notion of complex messages, information about Hector's language comprehension would be important. However, this was somewhat difficult to obtain using formal testing methods. Hector tended to respond inconsistently on both formal and informal comprehension tests, probably due to inattention.

School placement for Hector is problematical, since at the time he was observed, the assessment team could not find a setting in which both of his apparent needs could be met: Interaction with his teacher in Spanish and language intervention. Since Hector is apparently experiencing difficulty with the form of language in his native Spanish, there is good reason to believe that the most appropriate intervention would enhance development in Spanish. For this child, the goal of bilingual proficiency seems far removed from his actual language competence. Based on his difficulties with the form of language in expressive tasks, it would seem that introduction of formal alternatives from a second language should be introduced with caution, only after some progress has been documented in his native language.

Tomás

Tomás, age eight, might also be considered 'bilingual'. Relevant aspects of Tomás' language are outlined in Table 2. Although Tomás had learned Spanish first, he was attending an English-speaking school at the time of his evaluation. He was also receiving language intervention in English from the school speech and language pathologist.

Unlike Hector, who had little expressive English, Tomás showed similar performance in both English and Spanish on a vocabulary measure (James 1974). In a sentence repetition task (Toronto et al. 1975) Tomás omitted obligatory grammatical morphemes in both English and Spanish. Examples are given in Table 3 on the next page.

Table 2: Tomás, Age Eight, Linguistic Characteristics

A. Linguistic form

Vocabulary 'equivalent' in English and Spanish

MLU: Approximately 2.5 in both languages

Grammatical morphemes missing or incorrectly used in both languages, in spontaneous speech, and in sentence repetition

B. Use of language

Initiation rare, much hesitation in conversational context

Picture description shows possible influence of school register, longer utterances in both languages

Translation: usually responds appropriately

Interaction seen in calques, e.g.

E: What's she got in that bag?
T: "Carts" (Cf. Spanish cartas 'letters', the correct answer)

E: Brushing your what?
T: [d ntiz] (Cf. Spanish dientes 'teeth', the correct answer)

(T. later self-corrected, said teeth)

Table 3: Responses given by Tomás
in a sentence repetition task

	Spanish	English
S:	No trates de correr recio.	I want to go to school to see my friends.
	Trans: (Don't try to run fast)	
R:	No trates correr recio.	I want to go school see freinds.
S:	Papá me quiere llevar al parque.	Jeff is going to town.
	Trans: (Papa wants to take me to the park.)	
R:	Papá quiere llevar a parque.	Jeff going town.
S:	Elsa comió todas las galletas.	Somebody has been sleeping.
	Trans: (Elsa ate all the cookies)	
R:	El comió toda galleta.	Somebody sleeping.

Observation of conversational speech in both Spanish and English showed that Tomás used a telegraphic expressive style. Auxiliary verbs, object pronouns, and prepositions were often deleted. In Spanish, Tomás frequently deleted obligatory articles; when articles appeared, they often lacked gender and number agreement, or were reduced to [a]. For example, Tomás said un luz 'a light' (masculine article with feminine noun) and el niña 'the girl' (with masculine definite article). Although there is some debate in the developmental literature about the age at which gender and number agreement is mastered (van Naerssen 1979), Gili Gaya noted that "the notion of agreement" (1972:164) is well-established at seven years of age, in monolingual Puerto Rican children. Again, language acquisition may not be comparable across dialects of Spanish; lack of agreement alone would be insufficient evidence of language delay.

However, the extent of omission of grammatical morphemes in his native language, coupled with the general brevity of utterances in Tomás' spontaneous speech, argues for parallel language difficulties in both English and Spanish.

In both, Tomás had a mean length of utterance of about 2.5 morphemes, even when he was interacting with a family member. Since his utterances in such conversations should not have been affected by reticence (as they might have been in conversations with an unfamiliar adult), the brevity of his utterances is striking.

In addition to difficulties in expressive language, Tomás is apparently delayed in language comprehension with respect to his chronological age. In both English and Spanish tests of language comprehension, Tomás showed numerous errors

on vocabulary items and story comprehension tasks. Comprehension of syntactic structures (Carrow 1973) showed difficulties with verb tenses, number agreement, and descriptive adjectives.

However, some surprisingly long and complete utterances were noted when Tomás was asked to describe pictures in both English and Spanish. These formal exceptions can apparently be explained as influence of language intervention which Tomás is currently receiving in English. Examples are given in Table 4.

Table 4: Descriptions Given by Tomás

Spanish	English
Ella lavar lavando a pelo.	The girl is typing.
Trans: (She wash washing hair)	
San hablando, agarrando manos.	The boy is seeing the ears.
Trans. (They are talking, holding hands)	
Gente está comprando.	The girl is put gasoline the car.
Trans. (People are buying)	

A report from the school speech and language pathologist noted that Tomás has been receiving training in "using correct grammar and word order in simple sentences, such as the boy is reading the book". Apparently, Tomás has not only learned this type of simple sentence description in English, but he has also at least partially, transferred such structures into his Spanish. It must be cautioned here that the task of picture description seems quite likely to be one which would elicit "school speech" style. Even partial transfer may be a function of the sociolinguistic elicitation setting.

With respect to language function, Tomás' two languages appear to be structurally independent, and there is little evidence of 'interference'. Tomás was able to name certain items only in English (e.g., wig, carrot), but he was usually able to respond to requests for translation, either by giving the forms requested or by stating that he did not know.

Tomás would seem to fit the category described by Langdon as a child who is struggling not only in English, but also in Spanish, based on both expressive and receptive linguistic measures. The telegraphic omission of grammatical morphemes seems particularly inappropriate for a child of eight years of age. However, it would be important to observe Tomás' language under a set of circumstances in which a considerable range of linguistic behavior might be tapped, especially since longer utterances were produced in a possible "school register". If further

assessment determined that intervention was needed on a continuing basis, periodic checks on the extent of transfer would be important in order to more finely tune the goals of language programming. If bilingual proficiency is to be a goal for Tomás--not only improvement in English, but also in Spanish--then information about transfer or the lack of it would be crucial for deciding whether only English, or both English and Spanish, should be included in language training.

Oswaldo

Oswaldo, age nine, was the oldest of the three children at the time his language was observed. Oswaldo also showed the most complexity in both English and Spanish syntax. Relevant features of Oswaldo's language are presented in Table 5.

Oswaldo's conversational speech was more complex than might have been expected on the basis of his medical diagnosis--mental retardation associated with a seizure disorder and an encephalic cyst. Although Oswaldo's speech was certainly not error-free, as will be seen below, the competence he has achieved in the use of linguistic forms in both Spanish and English would seem to argue against the notion that bilingual proficiency is an unrealistic goal for a developmentally disabled child.

Oswaldo uses several grammatical features appropriately, as can be seen in Table 6.

Table 6: Examples of Syntactic Maturity in Oswaldo's Speech

Spanish	English
Mi papá se acuesta y luego qué hace?	Let me put it on. What's in my mouth?
Trans: (My papa goes to bed and then what does he do?)	It's time to go upstairs. Put that duck away.
Me trajeron desde el enfermado (=internado).	Can you roll it?
Trans: (They brought me from the home)	
Mi mamá se fué con Maria a un mandado.	But the bus is not here yet.
Trans: (My mama went on an errand with Maria)	

Table 6 shows that Oswaldo is using reflexives, conjunctions, preterite, and some prepositions correctly. Negation and questions appear as well as simple imperatives. One complex sentence type which occurred very often in Oswaldo's conversation was the purpose clause, e.g., Este es una lavadora para lavar ropa (This is a washing machine to wash clothes). The purpose clause turned out to be a

Table 5: Characteristics of
Oswaldo's Expressive Language at age Nine

Background: Improvement observed over a five-month period of hospitalization, change in medication

A. Linguistic form

Syntactic 'maturity' apparent in both English and Spanish
Oswaldo uses questions, negation, imperative, conjunction, and subordination in both.

Morphological over-regularizations:

Salό. Target: Saliό. 'He went out.'

Me detení. Target: Me detuve. 'I swung.'

Me trajiό. Target: Me trajo. 'He brought me.'

B. Use of language

Unable to translate, perseveration in inappropriate language or topic

Improvement seen in responding to questions in the appropriate language

Repetition and routines

C. Effects of organicity on language

Word-finding difficulties observed in both Spanish and English

Repetition of adult utterances, 'echolalia'

Extensive use of routine utterances

component of a very common verbal routine. Such routines were characteristic of Oswaldo's speech and will be discussed further below.

In order to determine the extent to which Oswaldo has productive control of complex syntactic structures such as those in Table 6, it would be important to know if he understands as well as produces such constructions. Unfortunately, both formal and informal measures of Oswaldo's comprehension turned out to be inconclusive. Although Oswaldo was able to carry out simple instructions, he had difficulty remembering two-part commands. Oswaldo responded appropriately to instructions with in and on, but he has clearly not mastered prepositional relations involving transitivity, such as between or entre.

Turning to the question of language separation, Oswaldo showed some improvement in language use over the course of the observation period. At the time of his hospital admission, Oswaldo was attending special education classes in an English-speaking school, where he was reported to have demonstrated considerable competence in both English and Spanish. However, initial language testing at the hospital indicated that Oswaldo often responded to questions in Spanish, regardless of the language in which the question was asked, e.g.:

E: What's this? Tell me in English.

O: Mira, eso es un palo. (Look, that is a stick.)

During his five-month stay in the hospital, Oswaldo interacted with staff members who spoke both Spanish and English, although he continued to receive special education in English. During this time, the medication for his seizures was also changed, after which Oswaldo appeared to be more attentive and more responsive to his conversational partner.

At the end of the observation period, Oswaldo's ability to use his two languages appropriately seemed to be much improved, although it was still not perfectly consistent. Oswaldo was able to use code-switching according to addressee, speaking to his mother in Spanish in the midst of an English conversation with the interviewer. In conversations with an interviewer who spoke both Spanish and English, Oswaldo initiated and followed language shifts.

Oswaldo was generally not able to respond appropriately when asked to translate. Instead, he tended to persist in the same language, e.g.:

E: What's this?

O: Pear

E: Dime en español. (Tell me in Spanish.)

O: Pear

On occasion, Oswaldo could respond to a translation on the part of the interviewer, e.g.:

E: Where is it now?

O: Under the table. [The object in question was under the chair]

E: Cómo se dice en español? 'How do you say that in Spanish?'

O: Under

E: Under? Abajo de qué? (Under what?)

O: De la silla. (the chair)

E: De la silla sí sabe! (the chair, yes, he knows!)

The above examples indicate that Oswaldo has not acquired the sophisticated metalinguistic skills which would be necessary for commenting on language use. His failure to translate probably results from failure to understand what it means to give an equivalent in his other language.

Oswaldo's perseveration in the 'wrong' language could also be interpreted as linguistic evidence for a more general problem which results from his organic condition. Linguistic effects of brain damage were apparent in word-finding difficulties and in Oswaldo's frequent repetitions of others' utterances.

Oswaldo had word-finding difficulties in both Spanish and English. After several hesitations or filled pauses, he would finally say a word which was phonetically similar to the target (Cf. enfermado for internado in Table 3). Further examples are provided in Table 7.

Table 7: Examples of Word-finding Difficulties in Oswaldo's Speech

Spanish	English
Esta es una pelota pa..pate..pa.. pegarle con el palo. [target was: para patear, 'to kick']	That's a door for ..put..in.. for put 'em in..le mete my house.
(This is a ball to ...hit (it) with a stick.)	E: Where is it? O: Up on a flower [target was: floor]

Far more characteristic of Oswaldo's language than word-searches were verbal routines or repetitions. In many instances, repetition of the interviewer's questions appeared to be a strategy Oswaldo used in order to process incoming information, e.g.:

E: Where were you this afternoon?

O: This afternoon?

E: Yeah. Where were you?

O: Were me?

E: Uh-huh (=yes, go on).

O: Right here.

E: En antes de venir aqui, ónde estabas? (Before coming here, where were you?)

O: Donde estaba yo? (Where was I?)

(Turns to his sister) Onde estaba yo, Maria? (Where was I, Maria?)

The above dialogue is typical of many interchanges which occurred during observation of Oswaldo's language. Oswaldo not only tended to perseverate in using inappropriate linguistic forms, but he also showed a tendency to persist in using the same topic across many intervening stretches of dialogue.

Routines which Oswaldo used included both rather conventional utterances for everyone, as well as others which were peculiar to his own dialect. In these verbal routines, once the initial utterance is determined, the rest seems to follow automatically. Two of these formulas are listed in Table 5: The 'what's that' routine (which very often includes a purpose clause), and the 'thank-you-very-much' routine.

Table 8: Samples of Oswaldo's Verbal Routines

Thank-you-very-much	What's That
O: Say thank you.	O: What's this?
E: Thank you.	E: I think it's a bed.
O: (sing-song) Very much	O: For what?
---	---
O: Thank you.	E: What's this one here?
E: You're welcome.	O: That's hands...for washing it like that, for soap. (mimes washing his hands)
O: Very much (sing-song)	---
	O: Mama, qué es esto? 'Mama, what's this?'
	M: Es un sofa. 'Ir's a sofa.'
	O: En donde...para sentarnos. 'Where..for us to sit on.'

Although the thank-you routine is certainly not unusual, in Oswaldo's version, the speaker must always follow up with very much. The what's that routine was not limited to English, as can be seen in Table 5. In both English and Spanish versions of this routine, the participants named objects and discussed their functions.

In themselves, routines and repetition are not pathological symptoms. Such utterances occur not only in normal first language acquisition, but also in second language learning (Keenan 1974, Peck 1978). However, the extent to which these formulas are used in Oswaldo's language as well as the context in which they appear--adult/child discourse--may result from organic impairment (Bloom and Lahey 1978).

Summary

The three cases sketched above reveal very different linguistic capabilities among children who might all be called 'bilingual'. Their control of linguistic form varies as well as the appropriateness of their language use. Hector has little or no command of English. For Tomás, there are similar problems with linguistic forms in both English and Spanish. Oswaldo's language appears to be syntactically sophisticated, but pragmatically aberrant.

Tomás and Oswaldo were able to maintain a separation between the two languages, although for Oswaldo, this was problematic at the start of the observation period. These two children also were able to use code-switching, a skill which would not have been observed if assessment had been carried out totally independently in each of their languages. Since code-switching is an important aspect of adult sociolinguistic competence, the fact that switches according to addressee occurred would indicate that Tomás and Oswaldo have gained sophistication in language use. These positive indications would have to be qualified through more fine-grained comparisons with sociolinguistic development in normal bilingual children, about which relatively little is known at present. Moreover, the two children differed in metalinguistic skills, as seen in their respective abilities in explicit translation tasks: Tomás was able to grasp the nature of this task, while Oswaldo was not, despite his apparently more mature grammatical abilities.

Is bilingual proficiency a realistic goal for children such as Hector, Tomás, and Oswaldo? Clearly, this goal must be considered in light of individual children's linguistic and cognitive skills, including not only information about language form, but also about language use. Although there are many questions concerning bilingual development which remain to be resolved by future research, it seems that bilingual proficiency is not beyond the grasp of children experiencing developmental disabilities. Rather, the extent to which individual children have in fact, progressed toward this goal has probably not been fully appreciated. Evidence presented in this paper has been anecdotal, yet I believe it indicates that one need not assume that a single-language policy is most beneficial; in fact, it may ignore linguistic skills which are important to the child and to his community.

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